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INTEGRATED CROP MANAGEMENT

Bean leaf beetles active through mid-June

It is now evident that sufficient numbers of bean leaf beetles survived the winter to cause problems in some early-emerging soybean fields. The next question is how much longer will they be around to feed on the soybean? Rick Smelser and Larry Pedigo, entomologists at Iowa State University, surveyed the bean leaf beetle for 3 years during the late 1980s. What they found was that in 1986 beetles colonized soybean on May 15-17, peaked in late May, and were present until numbers fell to zero in late June. In 1987, adult beetles were present on soybean seedlings on May 10-11, peaked in late May, and decreased to low levels during mid- to late June. In 1988, beetles were most abundant in mid- to late May and the population declined during late June. In 2000, I saw my last overwintered bean leaf beetle in Ames on June 16.



The bean leaf beetle often has four rectangular spots in the center of the wing covers.

[Enlarge](#) [1]

Based on these observations, beetles may continue to feed and lay eggs in soybean until at least mid-June and possibly until the end of June. For those producers not concerned about the spread of bean pod mottle virus by the bean leaf beetle, there are thresholds (Table 1) based solely on beetle populations and their potential for causing plant damage.

The economic threshold for VC stage soybean and a \$10 per acre treatment cost would be four beetles per plant or 30.4 per foot of row. Populations this large are rarely seen but may be possible on rare occasions. These thresholds, however, are of no use if you are concerned about the transmission of the virus by the beetles. See the [May 21](#) [2] and [28](#) [3], 2001, ICM newsletters for information on managing beetles in fields where the infection of the virus is a concern.

Table 1. Early-season bean leaf beetle economic thresholds in soybean based on beetles per plant.

Cost of treatment (\$/acre)																			
Market value (\$/bu)	Growth stage VC						Growth stage V1						Growth stage V2						
	\$6	\$7	\$8	\$9	\$10	\$11	\$6	\$7	\$8	\$9	\$10	\$11	\$6	\$7	\$8	\$9	\$10	\$11	
\$5.00	2.4	2.8	3.2	3.6	4.0	4.4	3.7	4.4	5.0	5.6	6.2	6.8	5.9	6.8	7.8	8.8	9.8	10.7	

For beetles per row-foot, multiply number by 7.6.

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<http://www.ipm.iastate.edu/ipm/icm//ipm/icm/2001/6-4-2001/blbactive.html>

Links:

- [1] <http://www.ent.iastate.edu/imagegal/coleoptera/beanlb/1343.36beanleafbeetle.html>
- [2] <http://www.ipm.iastate.edu/ipm/icm/2001/5-21-2001/>
- [3] <http://www.ipm.iastate.edu/ipm/icm/2001/5-28-2001/>

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